Trauma Centers

Trauma centers are voluntarily designated hospitals that provide a full range of care for severely injured patients 24 hours-a-day, seven days a week. Trauma care includes ready to go teams that perform immediate surgery and other necessary procedures for people with life threatening injuries, for example: Accidents, burns, falls, or gunshot wounds.

Trauma Regions and Trauma Centers



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Alabama

Trauma

System



Statewide Trauma and Health Systems

ADPH

Alabama Department of Public Health www.alabamapublichealth.gov

Trauma System

A trauma system involves trauma centers working together with 911, emergency medical service personnel, ambulances, helicopters, and other health care resources in a coordinated and preplanned way. This network of care is designed to get seriously injured people to the place with the right resources as quickly as possible.

- Hospitals are inspected and designated for the level of services they can provide.
- The trauma system is built around a high-tech communications center that coordinates patient transport from the scene to the appropriate hospital the first time.
- This is done with a computer intranet system and 24/7 staff that maintain up-to-the-minute status of all hospitals and resources.
- The system allows hospitals to always be in control of when they are available to accept a new patient.
- Everything is monitored by a Quality Assurance process.

Why do we need one? They save lives!

The trauma system started in seven counties around Birmingham in 1996. Between 1996 and 2005, there were over 23,000 patients treated for major trauma. There was a 12% decrease in the death rate from trauma in this area during that time. There was no change for the rest of the State.

- Alabama has the 4th highest per capita highway trauma rate in the United States.
- 70% of trauma cases are blunt (motor vehicle crashes or falls).
- 20% of trauma cases are due to penetrating injuries (gunshot or stabbing).
- 60% of trauma patients initially go to hospitals that lack the resources to treat them.

Challenges in Rural Trauma Care

- Paramedics are often not available to provide prehospital care.
- Emergency department physicians may not be experiences in treating seriously injured patients.
- Most hospitals do not have the surgical specialties to provide definitive trauma care.
- Arranging transfer to definitive care often takes hours.
- The Alabama Trauma System will route these patients from the scene directly to a trauma center.

Why do trauma patients die?

- Some are killed immediately from massive injuries (only injury prevention can help).
- Many die from serious head injuries (rapid care can help with this).
- Many bleed to death (only surgery can stop internal bleeding, and these patients often die while waiting for a transfer to a trauma hospital).
- Some die later of complications (organ failure or sepsis).

Trauma Survival is Time Dependent

Time-dependent means the earlier treatment is begun, the better chance of a good outcome. Time-dependent injuries are best treated with a planned, organized approach in order to save lives.

Incidence of Trauma Nationwide

- Trauma is the second leading cause of death in patients less than 40 years old (CDC 2011)
- 60 million people have been traumatically injured.
- 160,000 traumatically injured people die per year (56 per 100,000), and the rate is going up.
- 9 million people have been disabled, 300,000 permanently.
- Trauma is more commonly a disease of the young (15-34), and has a significant economic impact.
- Total yearly economic cost in Alabama is 6.5 billion dollars.

The Golden Hour

Patients have the best chance for survival if definitive care is available within an hour of traumatic injury. For trauma victims, stabilization frequently occurs only in the operating room where internal bleeding can be stopped and blood volume restored.

Trauma System Patient Routing/Transfers

Each participating hospital will be connected to the Alabama Trauma Communications Center (ATCC) so that there is constant monitoring of the resources and status of all hospitals in the system. When a patient needs the trauma system, emergency medical service personnel will call the ATCC, who will route the patient to the correct ready hospital capable of treating the patient's injuries. Transportation (air or ground) will be directed by the ATCC as needed. Transfer of patients from local hospitals to the correct trauma center will also be directed by the ATCC.

How Does the System Save Lives?

- It correctly identifies the patients who need trauma care
- It anticipates the resources needed to treat the patients.
- It identifies and locates the available needed resources.
- It routes the patient "right the first time" to reduce time to appropriate care.
- It directs inter-facility transfers, if needed, to reduce time to appropriate care.
- It improves care by using a Quality Assurance process.

Alabama is the ONLY state in the United States with the capability to constantly monitor the status and resources of every trauma center, and route the trauma patient to the right hospital, every time. This system is a model for the rest of the nation.